IN THE CLAIMS:

1. (Currently Amended) Method for comparing a first content with a second content to determine whether the contents are identical, comprising:

storing the first content in a cache on a local storage system;

requesting a second content from a remote storage system, wherein the second content is stored in a network storage arrangement on the remote storage system;

identifying a protocol encoding the first content and second content;

computing a first signature of the first content and a second signature of the second content, wherein the first signature has one or more unique protocol markers that are generated from transformation during protocol encoding and the second signature has one or more unique protocol markers that are generated from transformation during protocol encoding;

comparing the one or more unique protocol markers of the first computed signature with the one or more unique protocol markers the second signature to determine whether the first content is identical to the second content; and

storing ~~in~~ the second content in the cache on the local storage system, in response to determining the first content is not identical to the second content.

2. (Previously Presented) The method of claim 1 further comprising:

selecting a first set of data segments from the first content and a second set of data segments from the second content; and

using the selected first set of data segments and the second set of data segments to compute the first signature and the second signature.

3. (Original) The method of claim 2 wherein the selected first set of data segments and second set of data segments comprise locations associated with one or more protocol markers.

4. (Previously Presented) The method of claim 1 wherein the step of computing the signature of the first content and the signature of the second content further comprises:

identifying the one or more protocol markers associated with the first content; and

identifying the one or more protocol markers associated with the second content.

5. (Original) The method of claim 4 wherein the one or more protocol markers associated with the first content comprises discrete cosine coefficients.

6. (Original) The method of claim 4 wherein the one or more protocol markers associated with the second content comprises discrete cosine coefficients.

7. (Original) The method of claim 4 wherein the one or more protocol markers associated with the first content comprises motion vectors.

8. (Original) The method of claim 4 wherein the one or more protocol markers associated with the second content comprises motion vectors.

9. (Previously Presented) The method of claim 4 further comprising:

identifying a length of the first content; and

identifying a length of the second content.

10. (Currently Amended) A system to compare a first content with a second content, t comprising:

a content comparator executing on a local ~~storage system~~server, the content comparator contains:

a protocol identification module configured to identify a first protocol associated with the first content and a second protocol associated with the second content, wherein the second content is stored on a remote ~~storage system~~server,

where the remote ~~storage system~~server stores the second content and other data in a network area storage arrangement,

a plurality of data segmentation modules configured to select a set of data segments from each of the first content and the second content,

a plurality of signature computation modules configured to generate a first signature of the first content and a second signature of the second content, wherein the first signature has one or more unique protocol markers that are generated from transformation during protocol encoding and the second signature has one or more unique protocol markers that are generated from transformation during protocol encoding, and

a signature comparison module configured to compare the first signature with the second signature; and

a cache on the local ~~storage system~~server, the cache configured to store the first content and to store the second content if the signature comparison module determines the first signature of the first content and the second signature of the second content do not match.

11. (Currently Amended) An apparatus for comparing a first content with a second content, the apparatus comprising:

means for storing the first content in a cache on a local ~~storage system~~server;

means for requesting a second content from a remote ~~storage system~~server, wherein the second content is stored in a network storage arrangement on the remote ~~storage system~~server;

means for identifying a protocol encoding the first content and the second content;

means for selecting a set of data segments from the first content and the second content;

means for computing a signature of the first content and a signature of the second content, wherein the first signature has one or more unique protocol markers that are generated from transformation during protocol encoding and the second signature has one or

more unique protocol markers that are generated from transformation during protocol encoding;

means for comparing the computed signature of the first content with the computed signature of the second content; and

means for storing ~~in~~ the second content in the cache on the local ~~storage system~~ server, in response to determining the first content is not identical to the second content.

12. (Original) The apparatus of claim 11 wherein the selected data segments comprises locations associated with one or more protocol markers.

13. (Previously Presented) The apparatus of claim 11 wherein the means for computing the signature of the first content and the signature of the second content further comprises:

means for identifying the one or more protocol markers associated with the first content; and

means for identifying the one or more protocol markers associated with the second content.

14. (Original) The apparatus of claim 13 wherein the one or more protocol markers associated with the first content comprises discrete cosine coefficients.

15. (Original) The apparatus of claim 13 wherein the one or more protocol markers associated with the second content comprises discrete cosine coefficients.

16. (Original) The apparatus of claim 13 wherein the one or more protocol markers associated with the first content comprises motion vectors.

17. (Original) The apparatus of claim 13 wherein the one or more protocol markers associated with the second content comprises motion vectors.

18. (Original) The apparatus of claim 13 further comprises:

means for identifying a length of the first content; and

means for identifying a length of the second content.

19. (Currently Amended) A method to compare a first content with a second content in a network storage environment, comprising:

receiving the first content from a remote storage system, where the remote storage system stores the first content and other data in a network area storage arrangement;

computing a signature of the first content, wherein the signature of the first content has a set of protocol markers that are generated from transformation during protocol encoding;

storing ~~in~~ the first content in a cache on a local storage system;

transmitting a signature of a second content followed by the second content from a remote storage system to the local storage system, wherein the second content is stored in a network storage arrangement on the remote storage system;

comparing the computed signature of the first content with the signature of the second content, wherein the signature of the second content has a set of protocol markers that are generated from transformation during protocol encoding;

identifying, if the computed signature of the first content matches the signature of the second content, that the first content is identical to the second content; and

terminating transmission of the second content, in response to identifying the first content is identical to the second content.

20. (Previously Presented) The method of claim 19 wherein the step of computing the signature of the first content further comprises:

identifying the set of protocol markers associated with the content; and

generating the signature from the identified set of protocol markers.

21. (Previously Presented) The method of claim 20 wherein the set of protocol markers further comprise a set of discrete cosine coefficients.

22. (Previously Presented) The method of claim 20 wherein the set of protocol markers further comprises one or more motion vectors.

23. (Original) The method of claim 19 wherein a size of the received content is utilized in creating the signature.

24. - 33. (Cancelled)

34. (Currently Amended) A network caching device adapted to utilize a signature associated with a protocol for caching decisions, the network caching device comprising:

means for determining a protocol of new a content, wherein the new content is stored on one or more storage devices connected to a remote ~~storage system~~server that stores data in a network area storage arrangement;

means for computing a signature of the new content, wherein the signature of the new content is a set of protocol markers that are generated from transformation during protocol encoding; and

means for comparing the computed signature of the new content with signatures of other contents in a cache by comparing the set of protocol markers within the signature of the new content with protocol markers of other data contents in the cache, wherein the cache is located on a local ~~storage system~~server;

means for determining the signature of the new content is not identical to signatures of other contents; and

means for storing the new content to the cache, in response to determining the signature of the new content is not identical to signatures of other contents.

35. (Previously Presented) The network caching device of claim 34 wherein the means for computing a signature further comprises:

means for identifying the set of markers associated with the protocol associated with the new content; and

means for obtaining appropriate markers associated with the content.

36. (Previously Presented) A method, comprising:

storing a first content in a cache on a local storage system;

transmitting a second signature of a second content followed by the second content from a remote storage system to the local storage system, wherein the second content is stored in a network storage arrangement on the remote storage system;

identifying a protocol encoding of the first content and the second content;

identifying a first signature of the first content and a second signature of the second content, wherein each signature contains one or more protocol markers identifying the content, where the one or more protocols are generated from one or more transformations of each content during protocol encoding;

comparing one or more protocol markers within the first signature and the second signature to determine whether the first content is identical to the second content; and

terminating transmission of the second content from the remote storage system, in response to determining the protocol markers of the first content and the second content are identical.

37. (Previously Presented) The method of claim 36, further comprising:

computing the first signature of the first content as the first content is converted from raw data to the protocol; and

computing the second signature of the second content as the second content is converted from raw data to the protocol.

38. (Previously Presented) The method of claim 36, further comprising:

continuing transmission of the second content, if the first content and the second content are not identical.

39. (Previously Presented) The method of claim 36, wherein the one or more protocol markers associated with the first content comprises discrete cosine coefficients.

40. (Previously Presented) The method of claim 36, wherein the one or more protocol markers associated with the second content comprises discrete cosine coefficients.

41. (Previously Presented) The method of claim 36, wherein the one or more protocol markers associated with the first content comprises motion vectors.

42. (Previously Presented) The method of claim 36, wherein the one or more protocol markers associated with the second content comprises motion vectors.

43. (Previously Presented) The method of claim 36, further comprising:

identifying a length of the first content; and

identifying a length of the second content.

44. – 46. (Cancelled)

47. (Previously Presented) A method, comprising:

storing a first file in a cache on a local storage system, wherein the first file has a first signature with a first set of protocol markers that are generated from transformation during protocol encoding;

computing a signature of the second file, wherein the second signature has a second set of protocol markers that are generated from transformation during protocol encoding;

transmitting the signature of the second file followed by the second file from a remote storage system to the local storage system, wherein the second file is stored in a network storage arrangement on the remote storage system;

identifying a protocol type of the second file;

comparing the first set of protocol markers to the second set of protocol markers;

determining if the first set of protocol markers match the second set of protocol markers;

in response to determining the first set of protocol markers match the second set of protocol markers, terminating transmission of the second file from the remote storage system to the cache on the local storage system; and

in response to determining the first set of protocol markers do not match the second set of protocol markers, storing the second file in the cache.

48. (Previously Presented) The method of claim 47, further comprising:

in response to determining the first set of protocol markers do not match the second set of protocol markers, flushing the first file from the cache.

49. (Currently Amended) A system, comprising:

a local ~~storage system~~server with a cache, the cache configured to store a first file, wherein the first file has a first signature with a first set of protocol markers that are generated from transformation during protocol encoding;

a remote server~~storage system~~ configured to store a second file on one or more storage devices connected to the remote server~~storage system~~ in a network area storage arrangement, wherein the second file has a second signature with a second set of protocol makers that are generated from transformation during protocol encoding;

a network adapter on the local server~~storage system~~ to send a request for the second file to determine if the second file is an updated copy of the first file ~~is available~~;

a second network adapter on the remote server~~storage system~~ to transmit a second file to the local server~~storage system~~; and

a content comparator within the local server~~storage system~~, the content comparator configured to identify a protocol type of the second file, to compare the first set of protocol markers to the second set of protocol markers, to determine the first set of protocol markers match the second set of protocol markers, in response to determining the first set of protocol markers match the second set of protocol markers, to terminate transmission of the second file to the cache, and in response to determining the first set of protocol markers do not match the second set of protocol markers, to store the second file in the cache and flush the first file from the cache.